

H:\ENGINEERING\PROJECT FILES\16 Projects\16-09 2016 Sewer Main Rehabilitations\Drawings\2016 CIPP Sewer Main Rehabilitations Rev-2.dwg





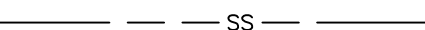






GENERAL NOTES SLIP LINE PROJECT:

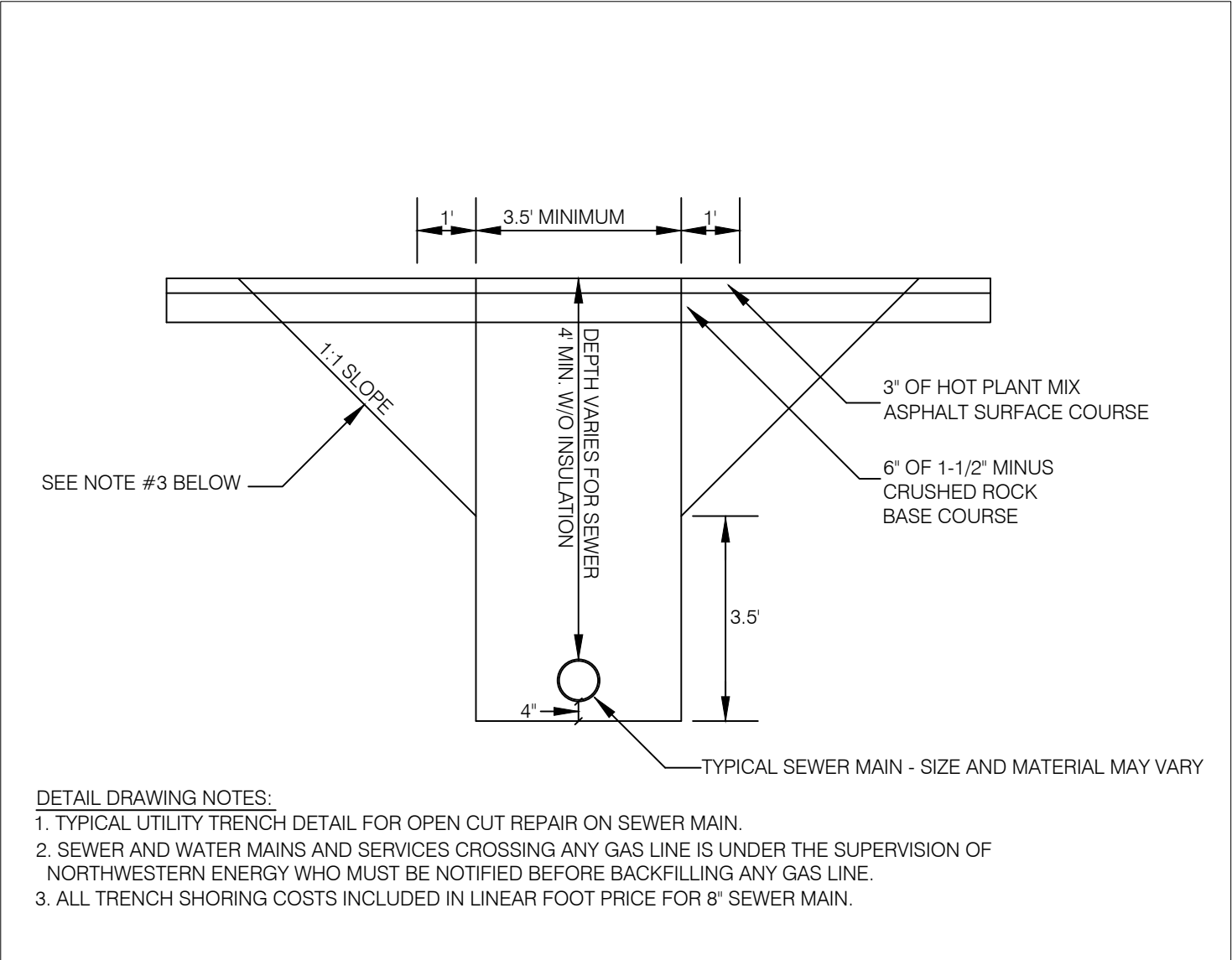
1. THESE ARE THE RECOMMENDED MINIMUM REQUIREMENTS FOR THE REHABILITATION OF SANITARY SEWER PIPELINES BY THE INSTALLATION OF CURED-IN-PLACE PIPE (CIPP) WITHIN THE EXISTING DETERIORATED PIPE. UNLESS MODIFIED BY THE CONTRACT DOCUMENTS, ALL WORK WILL CONFORM TO THE MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS, SIXTH EDITION, APRIL 2010 (REFERRED TO COLLECTIVELY AS MPWSS).
2. EXISTING UNDERGROUND UTILITIES SHOWN ARE FROM THE BEST INFORMATION AVAILABLE. THIS INFORMATION IS APPROXIMATE AND MAY BE INCOMPLETE. ELECTRICAL, TELEPHONE, FIBER OPTIC LINES ETC. ARE NOT SHOWN ON THESE PLANS SINCE EXCAVATION IS NOT PLANNED FOR THIS PROJECT. FOR ACCURATE LOCATION, THE CONTRACTOR SHALL CONTACT, PRIOR TO EXCAVATION, THE UTILITIES UNDERGROUND LOCATION CENTER AT: 1-800-424-5555.
3. THE REHABILITATION OF PIPELINES SHALL BE DONE BY THE INSTALLATION OF A RESIN-IMPREGNATED FLEXIBLE TUBE WHICH, WHEN CURED, SHALL BE CONTINUOUS AND TIGHT FITTING THROUGHOUT THE ENTIRE LENGTH OF PIPE AND PROVIDE A STRUCTURALLY SOUND, JOINT-LESS AND WATER TIGHT NEW PIPE WITHIN A PIPE. THE CONTRACTOR IS RESPONSIBLE FOR PROPER, ACCURATE AND COMPLETE INSTALLATION OF THE CIPP USING THE SYSTEM SELECTED BY THE CONTRACTOR.
4. NEITHER THE CIPP SYSTEM, NOR ITS INSTALLATION, SHALL CAUSE ADVERSE EFFECTS TO ANY OF THE OWNER'S PROCESSES OR FACILITIES. THE USE OF THE PRODUCT SHALL NOT RESULT IN THE FORMATION OR PRODUCTION OF ANY DETRIMENTAL COMPOUNDS OR BY-PRODUCTS AT THE WASTEWATER TREATMENT PLANT. THE CONTRACTOR SHALL NOTIFY THE OWNER AND IDENTIFY ANY BY-PRODUCTS PRODUCED AS A RESULT OF THE INSTALLATION OPERATIONS, TEST AND MONITOR THE LEVELS, AND COMPLY WITH ANY AND ALL LOCAL WASTE DISCHARGE REQUIREMENTS. THE CONTRACTOR SHALL CLEANUP, RESTORE EXISITING SURFACE CONDITIONS AND STURCTURES, AND REPAIR ANY OF THE CIPP SYSTEM DETERMINED TO BE DEFECTIVE. THE CONTRACTOR SHALL CONDUCT INSTALLTION OPERATIONS AND SCHEDULE CLEANUP IN A MANNER TO CAUSE THE LEAST POSSIBLE OBSTRUCTION AND INCONCENIENCE TO TRAFFIC, PEDESTRIANS, BUSINESSES, AND PROPERTY OWNERS OR TENANTS.
5. THE PRICES SUBMITTED BY THE CONTRACTOR, SHALL INCLUDE ALL COSTS OF PERMITS, LABOR, EQUIPMENT AND MATERIALS FOR THE VARIOUS BID ITEMS NECESSARY FOR FURNISHING AND INSTALLING, COMPLETE IN PLACE, CIPP IN ACCORDANCE WITH THESE SPECIFICATIONS. ALL ITEMS OF WORK NOT SPECIFICALLY MENTIONED HEREIN WHICH ARE REQUIRED, BY THE CONTRACTOR, TO MAKE THE PRODUCT PERFORM AS INTENDED AND DELIVER THE FINAL PRODUCT AS SPECIFIED HEREIN SHALL BE INCLUDED IN THE RESPECTIVE LUMP SUM AND UNIT PRICES BID.

DESCRIPTION OF CONSTRUCTION REQUIREMENTS SLIP LINE PROJECT:

1. PREPARATION, CLEANING, INSPECTION, SEWAGE BY-PASSING AND PUBLIC NOTIFICATION. THE CONTRACTOR SHALL CLEAN THE INTERIOR OF THE EXISTING HOST PIPE PRIOR TO INSTALLATION OF THE CIPP LINER. ALL DEBRIS AND OBSTRUCTIONS, THAT WILL EFFECT THE INSTALLATION AND THE FINAL CIPP PRODUCT DELIVERY TO THE OWNER, SHALL BE REMOVED AND DISOPOSED OF.
2. THE CIPP LINER SHALL BE CONSTRUCTED OF MATERIALS AND METHODS, THAT WHEN INSTALLED, SHALL PROVIDE A JOINTLESS AND CONTINUOUS STRUCTURALLY SOUND CIPP ABLE TO WITHSTAND ALL IMPOSED STATIC, AND DYNAMIC LOAD ON A LONG-TERM BASIS.
3. THE CONTRACTOR MAY, UNDER THE DIRECTION OF THE OWNER, UTILIZE ANY OF THE EXISTING MANHOLES IN THE PROJECT AREA AS INSTALLTION ACCESS POINTS. IF A STREET MUST BE CLOSED TO TRAFFIC BECAUSE OF THE LOCATION OF THE SEWER, THE CONTRACTOR SHALL FURNISH A DETAILED TRAFFIC CONTROL PLAN AND ALL LABOR AND EQUIPMENT NECESSARY. THE PLAN SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS OF THE LOCAL AGENCY HAVING JURISDICTION OVER TRAFFIC CONTROL.
4. THE CONTRACTOR SHALL REMOVE ALL INTERNAL DEBRIS FROM TEH PIPE LINE THAT WILL INTERFERE WITH THE INSTALLATION AND THE FINAL PRODUCT DELIVERY. SOLID DEBRIS AND DEPOSITS SHALL BE REMOVED FROM THE SYSTEM AND DISPOSEED OF PROPERLY BY THE CONTRACTOR. PRECAUTION SHALL BE TAKEN, BY THE CONTRACTOR IN THE USE OF CLEANING EQUIPMENT TO AVOID DAMAGE TO THE EXISTING PIPE. THE REPAIR OF ANY DAMAGE, CAUSED BY THE CLEANING EQUIPMENT, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
5. THE CONTRACTOR SHALL PROVIDE FOR THE FLOW OF EXISTING MAINLINE AND SERIVCE CONNECTION EFFLUENT AROUND THE SECTION OR SECTIONS OF PIPE DESIGNATED FOR CIPP INSTALLATION. SERVICE CONNECTION EFFLUENT MAY BE PLUGGED ONLY AFTER PROPER NOTIFICATION TO THE AFFECTED RESIDENCE AND MAY NOT REMAIN PLUGGED OVERNIGHT.
6. CONTRACTOR SHALL PERFORM POST-CLEANING VIDEO INSPECTIONS OF THE PIPELINES. ONLY PACP CERTIFIED PERSONNEL TRAINED IN LOCATING BREAKS, OBSTACLES AND SERVICE CONNECTIONS BY CLOSED CIRCUIT TELEVISION SHALL PERFORM THE INSPECTION. THE CONTRACTOR SHALL PROVIDE THE OWNER A COPY OF THE PRE-CLEANING AND POST-CLEANING VIDEO AND SUITABLE LOG FOR REVIEW PRIOR TO INSTALLATION OF THE CIPP AND FOR LATER REFERENCE BY THE OWNER.
7. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CLEAR THE LINE OF OBSTRUCTIONS THAT WILL INTERFERE WITH THE INSTALLATION AND LONG-TERM PERFORMANCE OF THE CIPP. IF PRE-INSTALLATION INSPECTION REVEALS AN OBSTRUCTION, MISALIGNMENT, BROKEN OR COLLAPSED SECTION OR SAG THAT WAS NOT IDENTIFIED AS PART OF THE ORIGINAL SCOPE OF WORK AND WILL PROHIBIT PROPER INSTALLATION OF THE CIPP, THE CONTRACTOR MAY BE DIRECTED BY THE OWNER TO CORRET THE PROBLEMS PRIOR TO LINING BY UTILIZING OPEN CUT REPAIR METHODS. THE CONTRACTOR SHALL BE COMPENSATED FOR THIS WORK UNDER A CONTINGENCY PAY ITEM DESIGNATED FOR OPEN CUT POINT REPAIRS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING THE LOCATIONS OF ALL BRANCH SERVICE CONNECTIONS PRIOR TO INSTALLING AND CURING THE CIPP. IF REQUIRED IN THE CONTRACT DOCUMENTS, EACH CONNECTION WILL BE DYE TESTED TO DETERMINE WHETHER OR NOT THE CONNECTION IS LIVE OR ABANDONED. THE COST FOR DYE TESTING OF EXISTING OF EXISTING SERVICE CONNECTIONS SHALL BE COMPENSATED AT THE UNIT PRICE BID IN THE PROPOSAL FOR DYE TESTING OF EXISTING SERVICE CONNECTIONS. IN THE EVENT THE STATUS OF A SERVICE CONNECTION CANNOT BE ADEQUATELY DEFINED, THE OWNER WILL MAKE THE FINAL DECISION, PRIOR TO INSTALLATION AND CURING OF THE LINER, AS TO THE STATUS. TYPICALLY ONLY SERVICE CONNECTIONS DEEMED ACTIVE SHALL BE REOPENED BY THE CONTRACTOR.
9. THE CONTRACTOR SHALL BE ALLOWED USE WATER FROM AN OWNER APPROVED FIRE HYDRANT IN THE PROJECT VICINITY. USE OF AN APPROVED DOUBLE CHECK BACKFLOW ASSEMBLY SHALL BE REQUIRED. CONTRACTOR SHALL PROVIDE HIS OWN APPROVED ASSEMBLY. CONTRACTOR SHALL PAY CURRENT MARKET PRICE FOR ALL WATER USAGE.

PROJECT PLANS LEGEND/KEY:

	EXISTING WATER VALVE AND VALVE RISER BOX
	EXISTING HYDRANT ASSEMBLY
	EXISTING CURB STOP FOR WATER SERVICE
	EXISTING MANHOLE
	EXISTING 7" SEWER LINE
	EXISTING 8" SEWER MAIN
	8" SEWER MAIN CIPP REHABILITATION
	EXISTING 10" SEWER MAIN
	10" SEWER MAIN CIPP REHABILITATION
	EXISTING 12" SEWER MAIN
	12" SEWER MAIN CIPP REHABILITATION



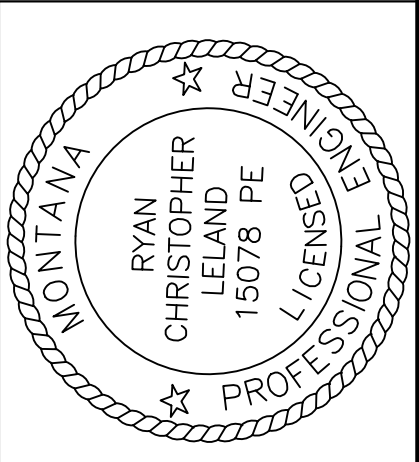
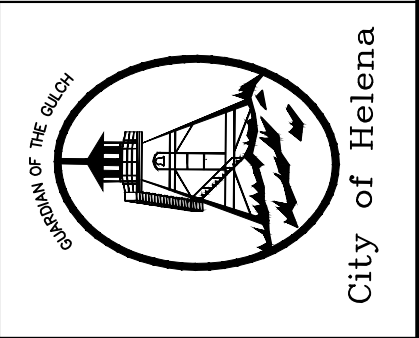
UTILITY TRENCH DETAIL

NO SCALE

CITY OF HELENA ENGINEERING DIVISION
SEWER MAIN REHABILITATIONS
CITY PROJECT 16-09
DETAILS LEGEND- NOTES

NO.	REVISION DESCRIPTION	BY	DATE
1	DRAFT	TL	11/7/16

PROJECT: #16-09	DESIGNED: TJL	DRAWN: TJL	CHECKED: JRC	APPROVED: JRC	DATE: OCTOBER 2016
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CITY OF HELENA ENGINEERING DIVISION
SEWER MAIN REHABILITATIONS
CITY PROJECT 16-09
DETAILS LEGEND- NOTES

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OF 8